

Title (en)
BOTULINUM NEUROTOXIN B RECEPTORS AND USE THEREOF

Title (de)
BOTULINUMNEUROTOXIN-B-REZEPTOREN UND IHREVERWENDUNG

Title (fr)
RECEPTEURS DE LA NEUROTOXINE BOTULIQUE B ET UTILISATION DESDITS RECEPTEURS

Publication
EP 1578382 A4 20070829 (EN)

Application
EP 03816739 A 20031028

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Abstract (en)
[origin: US2004191887A1] It is disclosed here that synaptotagmin I (syt I) and synaptotagmin II (syt II) are the cellular receptors for botulinum neurotoxin B (BoNT/B) that mediate the cellular entry and toxicity of BoNT/B. The BoNT/B binding domains of syt I and II are also disclosed. While syt I needs gangliosides for BoNT/B binding, syt II can bind to BoNT/B in the absence of gangliosides. Various nucleic acids and polypeptides that relate to the BoNT/B binding domain of syt I or II are disclosed. Further disclosed are methods of reducing BoNT/B toxicity, methods of identifying agents that can block the binding between BoNT/B and syt I or II, methods of identifying agents that can bind to the BoNT/B binding domain of syt I or II, and methods of detecting BoNT/B or Clostridium botulinum.

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